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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,506	02/28/2002	Takashi Okazoe	219922US0CONT	8358
22850	7590	03/04/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			KEYS, ROSALYND ANN	
			ART UNIT	PAPER NUMBER

1621

DATE MAILED: 03/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/084,506

Applicant(s)

OKAZOE ET AL.

Examiner

Rosalynnd Keys

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23,25 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23,25 and 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Status of Claims***

1. Claims 1-23, 25 and 26 are pending.  
Claims 1-23, 25 and 26 are rejected.  
Claim 24 is cancelled.

### ***Response to Amendment***

#### *Specification*

2. The objection to the specification is withdrawn.

#### *Claim Objections*

3. The objection to Claim 11 is withdrawn.
4. The objection to Claim 17 is withdrawn.

#### *Claim Rejections*

5. A new rejection is being applied as a result of the amendment after final, filed February 19, 2004. Thus, the finality of that last office action is withdrawn.

### ***Allowable Subject Matter***

6. The indicated allowability of claim 11 is withdrawn for formal matters.
7. The indicated allowability of claim 24 is withdrawn in view of the newly discovered reference(s) to Murata et al. (J. Am. Chem. Soc. Vol. 120, No. 28, July 1998, pp. 7117-7118). Rejections based on the newly cited reference(s) follow.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 is indefinite because of the compound having the formula  $\text{CF}_2\text{-}\mathbf{CI}\text{-CFCl}(\text{CF}_2)_2\text{O}(\text{CF}_2)_2\text{COF}$ , in particular the chlorine-iodine bond (said bond has been bolded for emphasis).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

12. Claims 1-10, 12-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murata et al. (J. Am. Chem. Soc. Vol. 120, No. 28, July 1998, pp. 7117-7118) in view of Bierschenk et al. (US 5,093,432).

Murata et al. teach preparing perfluoroesters by direct fluorination of the corresponding hydrocarbon esters according to the process taught by Bierschenk et al. (see column 1, line 58 to column 9, line 45). The intermediate perfluorinated esters are then converted to the corresponding acyl fluoride by thermal decomposition (see entire document, in particular page 7117).

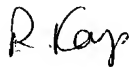
Murata et al. and Bierschenk et al. differ from the instant claims in that they do not specifically teach preparing vic-dichloro acid fluoride compounds. However, in column 2, lines 28-33 Bierschenk et al. teach that due to the mild conditions employed in the method, chlorinated hydrocarbons can be converted to polyfluorinated materials with essentially all of the chlorine being retained in original positions. Thus, one having ordinary skill in the art at the time the invention was made would reasonably expect the reaction for obtaining acid fluorides which contain chlorine atoms to proceed similarly to the reaction for obtaining acid fluorides as taught by Murata et al. and Bierschenk et al. The skilled artisan would further expect the decomposition reaction of the instant invention to proceed according to the method of the prior art, since like the perfluoroesters of Murata et al. the perfluoroesters of the instant invention contain two fluorine atoms at the  $\alpha$  position.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rosalynn Keys whose telephone number is 571-272-0639. The examiner can normally be reached on M and F 3:00-8:00 pm and T-R 5:30-10:30 am.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



R. Keys  
March 3, 2004



Rosalynd Keys  
Primary Examiner  
Art Unit 1621